32407-PCT-USA-A PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

nvanjara

Wu et al.

Application No.

09/930,781

Filed

August 15, 2001

**Entitled** 

PROPAGATION OF HUMAN HEPATOCYTES IN NON-

**HUMAN ANIMALS** 

**Group Art Unit** 

1632

Examiner

Anne Marie Baker

I hereby certify that the correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on

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December 17, 2002

Peter J. Shen (Reg. No. 52,217)

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## SUBMISSION OF FORMAL DRAWINGS

**Assistant Commissioner for Patents** Washington, D.C. 20231

Attention: Official Draftsperson

AVAILABLE COPY

Sir:

Enclosed herewith are 35 sheets of formal drawings for Figures 1-32 in connection with the above-identified application. Please substitute these formal drawings for the drawings previously filed in this application. The enclosed formal drawings fully comply with the requirements of 37 C.F.R. § 1.84(a). No fee is believed due in connection with this submission. However, should any fee be due, the Commissioner is hereby authorized to charge payment of such fee to Deposit Account No. 02-4377.

Date: December 17, 2002

Respectfully submitted,

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RESPONDER CELLS: RAT SPLEEN CELLS STIMULATOR CELLS: HUMAN HEPATOCYTES

SPLEEN(S): SPLEEN CELLS FROM RATS TREATED WITH SALINE WHEN THEY WERE FETILISES

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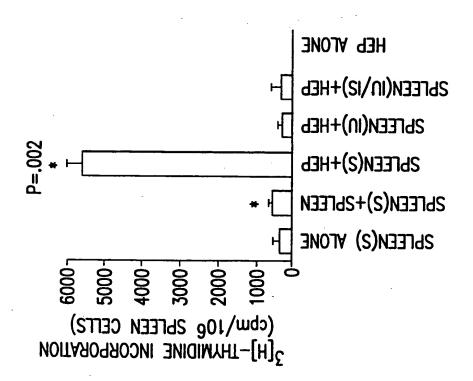
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HEP: IRRADIATED HUMAN HEPATOCYES.

SPLEEN(IU): SPLEEN CELLS FROM RATS TOLERIZED BY INTRAUTERINE INJECTION OF HUMAN HEPATOCYTE LYSATES.

SPLEEN(IU/IS): SPLEEN CELLS FROM RAT FOLERIZED BY INTRAUTERINE INJECTION OF HUMAN HEPATOCYTE LYSATES FOLLOWED BY INTRASPLENIC TRANSPLANTATION OF HUMAN HEPATOCYTES AFTER RIRTH



F16.



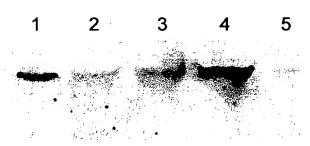
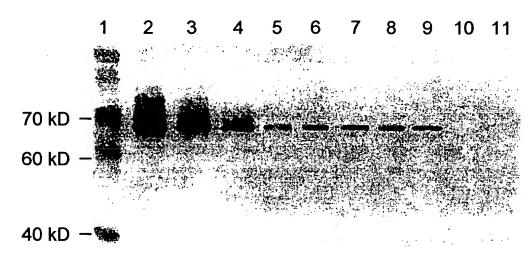


FIG.2



- 1: Molecular weight markers
- 2: Human serum albumin, 50 μg
- 3: Human serum albumin, 10 μg
- 4: Human serum albumin, 1 μg
- 5: Week 1 post-human hepatocyte transplant
- 6: Week 2 post-human hepatocyte transplant
- 7: Week 3 post-human hepatocyte transplant
- 8: Week 4 post-human hepatocyte transplant
- 9: Week 5 post-human hepatocyte transplant
- 10: Control animal. human fibroblast transplant. 1 week
- 11: Rat serum albumin, 50 μg

FIG.3



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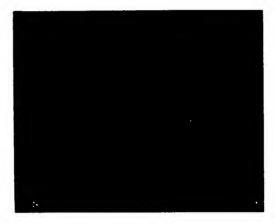


FIG.4A



FIG.4B

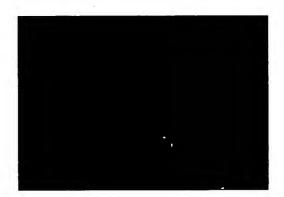


FIG.4C

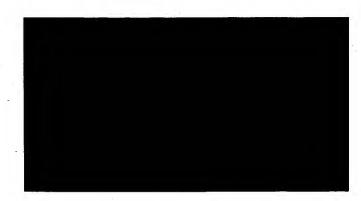


FIG.4D

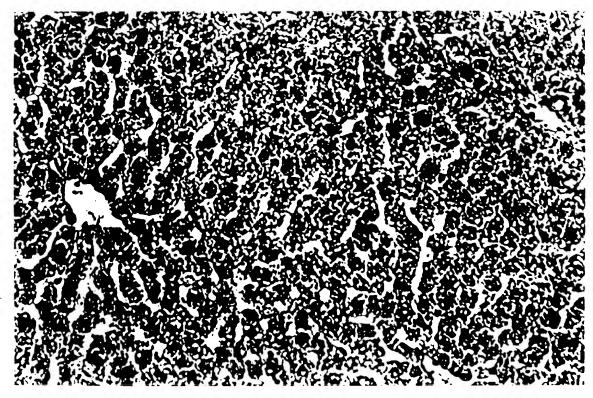
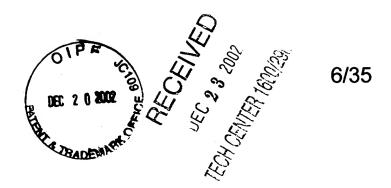


FIG.5



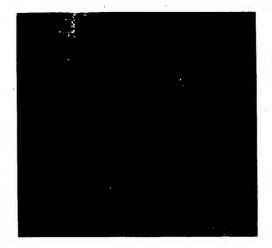


FIG.6A

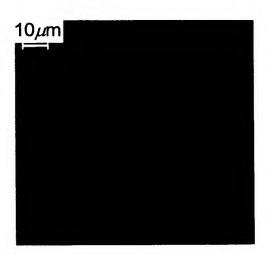


FIG.6B

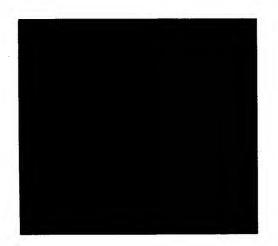


FIG.6C

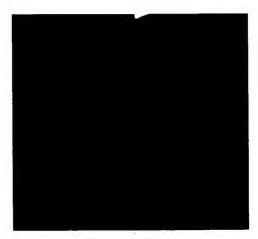


FIG.6D



2 3 5 68,000 -

- 10 ng standard human albumin 10 ng standard rat albumin

- 2 days 2 weeks
- 3 weeks 5:
- 5 weeks 6:
- 6 weeks **7:**

FIG.7



Time course of human albumin and HBV expression



Anti Hepatitis B Surface Antigen

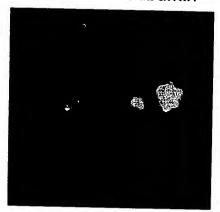


FIG.8A

1 week

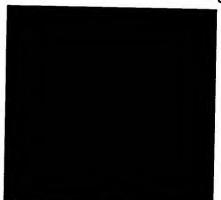


FIG.8B

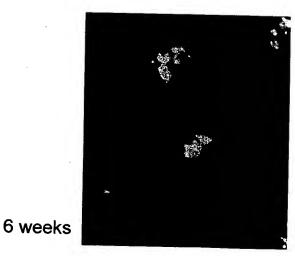


FIG.8C

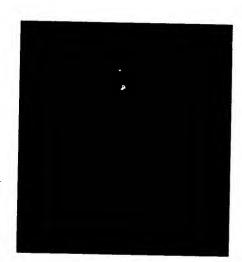


FIG.8D